

Pertussis (Whooping Cough) Key Messages, August 2, 2010

(Note: updates since the last key messages were circulated are highlighted in yellow)

- Pertussis (whooping cough) is highly contagious and one of the most commonly occurring vaccine-preventable diseases in the United States.
 - People with pertussis usually spread the disease by coughing or sneezing while in close contact with others, who then breathe in the pertussis bacteria.
 - Many infants who get pertussis are infected by older siblings, parents or other caregivers who might not even know they have the disease.
- Pertussis is most severe for babies, who often catch the illness from a family member or other caregiver.
 - More than half of infants less than 1 year of age who get the disease must be hospitalized.
 - About **1 in 5** infants with pertussis get pneumonia (lung infection).
 - About 1 in 100 infants will have convulsions.
 - In rare cases **(1 in 100)**, pertussis can be deadly, especially in infants less than 1 year of age. This is the age group we're most concerned about when it comes to pertussis.
 - Many infants who get pertussis are infected by older siblings, parents, or other caregivers who might not even know they have the disease.
- Pertussis symptoms can be different depending on how old you are or if you've been vaccinated.
 - Pertussis usually starts with cold-like symptoms, and maybe mild cough, but not every runny nose is pertussis. Pertussis is often not suspected or diagnosed until a persistent cough with spasms sets in after 1–2 weeks.
 - In infants, the cough may be mild or absent. However, infants may have a symptom known as "apnea." Apnea is a brief pause in the child's breathing pattern.
 - Infants and children with pertussis can cough violently and rapidly, over and over, until the air is gone from their lungs and they're forced to inhale with a loud "whooping" sound. This extreme coughing can result in vomiting and exhaustion. Illness is generally less severe in adolescents and adults.
 - **The coughing fits can take place for 10 weeks or more.**
 - Although children are often exhausted after a coughing fit, they usually appear relatively healthy in-between coughing episodes.
 - The illness can be milder (less severe) and the typical "whoop" absent in children, adolescents, and adults who have been vaccinated.
- Seeking treatment when pertussis symptoms first start is important.
 - If you or your child is having trouble breathing, seek medical attention immediately.
 - Tell the doctor if you or your child has been around others with cough/cold symptoms or if you've heard that pertussis is in your community.
 - Antibiotic treatment may make the pertussis infection less severe if it is started early, before coughing fits begin.
 - Antibiotic treatment can help prevent spreading the disease to close contacts (people who have spent a lot of time around the infected person) and is necessary for stopping the spread of pertussis.

- Pertussis occurs in a cyclical pattern, with the number of cases peaking every 3 to 5 years as people's immunity from the vaccine wears off and the bacteria begin circulating again.
- Even with the success of pertussis vaccines, people continue to get pertussis in the US.
 - Since the 1980s, there's been an increase in the number of reported cases of pertussis, especially among teens (10–19 years of age) and babies younger than 6 months of age.
 - Multiple factors have likely contributed to the increase, including waning immunity from childhood pertussis vaccines, increased recognition, better diagnostic testing and increased reporting.
 - In 2008 there were more than 13,000 reported cases including 18 deaths from pertussis nationally.
 - Most deaths occur in babies who are too young to be fully vaccinated.
 - In 2005, the last peak year, there were more than 25,000 reported cases of pertussis. But, many cases of pertussis are not recognized or reported so this is likely a substantial underestimate.
- In the first few months of 2010, several states are reporting increased cases of pertussis as compared to the same time last year.
 - In particular, California has reported 2,174 cases and 7 infant deaths due to pertussis as of July 27, 2010.
 - On June 17, 2010, California declared a pertussis epidemic.
 - In response to the epidemic in California, efforts are underway to increase awareness of pertussis and get more people vaccinated.
 - Among other efforts, California hopes to prevent pertussis transmission to the most vulnerable population, infants less than 1 year of age.
 - For up to date information on the California epidemic, visit www.cdph.ca.gov
 - There have also been recent news articles regarding increased pertussis activity or outbreaks in Arizona, Georgia, Idaho, Michigan, Minnesota, New York, North Carolina, Ohio, Oregon and South Carolina.
 - However, it's important to know that while a number of states are reporting an increase in the number of pertussis cases in 2010, other states are reporting less pertussis activity in comparison to this time last year.
- Everyone should make sure they are up to date with recommended pertussis vaccines (**DTaP** for infants/children and **Tdap** for adolescents/adults). If not sure, call your doctor to see what's best for you and your family.
 - No serious reactions have been associated with DTaP or Tdap and getting these vaccines is much safer than getting the dangerous kinds of diseases they prevent.
- Infants and children are recommended to receive the childhood pertussis vaccine, or DTaP, at 2, 4, and 6 months of age. A fourth shot is given at 15 through 18 months of age, and a fifth shot is given when a child enters school, at 4 through 6 years of age.
 - To maximize protection, all 5 doses of DTaP are needed on time according to the recommended immunization schedule.
- Since 2005, there has been an adolescent/adult pertussis booster vaccine (Tdap) that can be used for prevention and control of pertussis.
 - The protection received from DTaP, the childhood vaccine, fades over time. Adolescents and adults need Tdap, even if they were completely vaccinated with DTaP as children.

- Pre-teens going to the doctor for their regular check-up at age 11 or 12 years should get a dose of Tdap.
 - If a teenager (13-18 years) missed getting Tdap at his/her check-up, ask the doctor about getting it now.
 - Adults 19-64 years old who didn't get Tdap as a pre-teen or teen should get one dose of Tdap instead of their next Td booster.
 - The dose of Tdap can be given earlier than the 10-year mark since the last Td booster, so it's a good idea for adults to talk to a healthcare provider about what's best for their specific situation.
 - Getting vaccinated with Tdap is especially important for family members with and caregivers of new infants.
- There is no pertussis booster vaccine licensed for persons 65 years and older.
 - The Advisory Committee on Immunization Practices (ACIP) has no recommendation on the use of Tdap in persons 65 years and older. This may change if more data in this age group becomes available.
 - The safety of Tdap in persons 65 years and older is likely the same as in 18-64 year olds.
 - Providers may choose to give Tdap in persons 65 years and older.
 - The decision to use any vaccine off-label depends on the clinician and patient agreeing that the benefit of the vaccine exceeds the risk.
 - A dose of Tdap is likely to boost antibody levels to pertussis.
- Many infants who get pertussis are infected by older siblings, parents, or other caregivers who might not even know they have the disease. If you are planning on becoming pregnant or are currently pregnant, talk to your doctor about getting the Tdap vaccine. Don't risk spreading this disease to your baby. Make sure all people around your baby are vaccinated with Tdap including siblings, grandparents, aunts, uncles, nannies, caregivers, childcare staff, etc.
 - If pertussis is circulating in the community, there is still a chance that a fully vaccinated person (of any age) can catch this very contagious disease. This is because no vaccine is 100% effective. However, when a vaccinated person gets pertussis, the infection is usually less severe.
 - Keep young infants away from people with cough illness. Likewise, people with cough illness should always stay away from young infants.
 - Providers should:
 - Make sure patients of all ages are up to date on pertussis-containing vaccines (see immunization schedules at <http://www.cdc.gov/vaccines/recs/schedules/default.htm>).
 - Consider the diagnosis of pertussis in their patients and close contacts. The diagnosis of pertussis is often delayed or missed. In the youngest infants, atypical presentation is common – the cough may be minimal or absent and the primary symptom can be apnea.
 - Test for pertussis in their patients, using the correct tests (see http://www.aphl.org/aphlprograms/infectious/Documents/Pertussis_Brochure-Final3.pdf).
 - Treat appropriately for pertussis. Because pertussis may progress rapidly in young infants, treat suspected and confirmed cases promptly.

- Quickly report cases of pertussis to their local public health department to assist with preventing additional cases.
- Public health professionals can try to raise awareness among the community about pertussis vaccines, working with local immunization coalitions and other partners to maximize outreach.
- Public health professionals should continue with pertussis surveillance and report observed increased pertussis incidence or changes in the epidemiology of pertussis in 2010 to CDC at MVPDB@cdc.gov.

PERTUSSIS RESOURCES (8/2/2010)

- CDC pertussis vaccines website
 - <http://www.cdc.gov/vaccines/vpd-vac/pertussis/default.htm>
- CDC pertussis web feature
 - <http://www.cdc.gov/features/pertussis> (English)
 - <http://www.cdc.gov/spanish/especialesCDC/TosFerina/> (Spanish)
- Pertussis flyer
 - http://www.cdc.gov/vaccines/vpd-vac/pertussis/downloads/f_pertussis_print-508.pdf (English)
 - http://www.cdc.gov/vaccines/vpd-vac/pertussis/downloads/f_pertussis_print_sp-508.pdf (Spanish)
- CDC Tdap adolescent podcast
 - <http://www2c.cdc.gov/podcasts/player.asp?f=9957>
- Tdap Health e-cards
 - <http://www2c.cdc.gov/ecards/index.asp?category=245> (English)
 - <http://www2c.cdc.gov/ecards/index.asp?audience=88&language=es> (Spanish)
- CDC Pre-teen Vaccine Campaign / materials
 - <http://www.cdc.gov/vaccines/spec-grps/preteens-adol/07gallery/default.htm>
- CDC It's Their Turn Initiative / materials
 - <http://www.cdc.gov/vaccines/spec-grps/preteens-adol/prof-matls/state-materials.htm>
- CDC/Medscape video commentary: Pertussis - Recognition and Treatment
 - <http://www.medscape.com/viewarticle/713708>
- CDC/Medscape video commentary: With Pertussis on the Rise, Who Needs a Tdap Vaccination?
 - <http://www.medscape.com/viewarticle/724242>
- CDC RSS Feeds for Office of Women's Health (women's health RSS and kids' health RSS)
 - <http://www2c.cdc.gov/podcasts/rss.asp>
- CDC Pertussis Chapter - Surveillance of Vaccine-Preventable Diseases textbook
 - <http://www.cdc.gov/vaccines/pubs/surv-manual/chpt10-pertussis.htm>
- CDC Guidelines for the Control of Pertussis Outbreaks
 - <http://www.cdc.gov/vaccines/pubs/pertussis-guide/guide.htm>
- APHL brochure for laboratorians (summary of pertussis diagnostics)
 - http://www.aphl.org/aphlprograms/infectious/Documents/Pertussis_Brochure-Final3.pdf
- California Department of Public Health pertussis website and materials

- <http://www.cdph.ca.gov/HealthInfo/discond/Pages/Pertussis.aspx>
- Silence the Sounds of Pertussis Campaign (PKIDs)
 - http://www.pkids.org/dis_pert_stsop.php (English)
 - http://www.pkids.org/dis_pert_span.php (Spanish)
- Sounds of Pertussis Campaign (March of Dimes & sanofi pasteur)
 - <http://www.soundsofpertussis.com/>